station installed for duplication must also comply with the requirements $\S 80.1091(c)$.

- (4) Ships, equipped in accordance with \$80.1093 for sea areas A1, A2, A3, and A4, must carry a VHF radio installation complying with the requirement of \$80.1085(a)(1) and an MF/HF radio installation complying with the requirements of \$80.1091(b)(1) and being able to fully comply with watch requirements as specified in \$80.1123(a)(2). The MF/HF radio installation installed for duplication must also comply with the requirements \$80.1091(c).
- (h) The radio installations specified in paragraph (g) of this section (referred as "duplicated equipment"), in addition to the appropriate radio equipment specified in §80.1099 (referred as "basic equipment"), must be connected to the reserve sources of energy required by §80.1099. The capacity of the reserve sources of energy should be sufficient to operate the particular installation (i.e., the basic equipment or the duplicated equipment) with the highest power consumption, for the appropriate period specified in §80.1099. However, the arrangement for the reserve sources of energy must be such that a single fault in this arrangement cannot affect both the basic and the duplicated equipment.
- (i) If the shore-based maintenance method is used, the following requirements apply.
- (1) Maintenance services must be completed and performance verified and noted in the ship's record before departure from the first port of call entered after any failure occurs.
- (2) Each GMDSS equipment must be tested and performance verified and the results noted in the ship's record before departure from every port. To accomplish this, each ship shall carry a performance checkoff sheet listing each GMDSS equipment carried on a mandatory basis.
- (j) If the at-sea maintenance method is used, the following requirements apply.
- (1) Adequate additional technical documentation, tools, test equipment, and spare parts must be carried onboard ship to enable a qualified maintainer as specified in §80.1074 to per-

form tests and localize and repair faults in the radio equipment.

- (2) Only persons that comply with the requirements of §80.1074 may perform at-sea maintenance on radio installations required by this subpart.
- (k) Satellite EPIRBs shall be tested at intervals not exceeding 12 months for all aspects of operational efficiency with particular emphasis on frequency stability, signal strength and coding. The test may be conducted on board the ship or at an approved testing or servicing station.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003]

OPERATING PROCEDURES FOR DISTRESS AND SAFETY COMMUNICATIONS

§80.1109 Distress, urgency, and safety communications.

- (a) Distress traffic consists of all messages relating to the immediate assistance required by the ship in distress, including search and rescue communications and on-scene communications. Distress traffic must as far as possible be on the frequencies contained in §80.1077.
- (b) Urgency and safety communications include: navigational and meteorological warnings and urgent information; ship-to-ship safety navigation communications; ship reporting communications; support communications for search and rescue operations; other urgency and safety messages and communications relating to the navigation, movements and needs of ships and weather observation messages destined for an official meteorological service.
- (c) Intership navigation safety communications are those VHF radiotelephone communications conducted between ships for the purpose of contributing to the safe movement of ships. The frequency 156.650 MHz is used for intership navigation safety communications (see § 80.1077).

§80.1111 Distress alerting.

(a) The transmission of a distress alert indicates that a mobile unit or person is in distress and requires immediate assistance. The distress alert

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is a digital selective call using a distress call format in bands used for terrestrial radiocommunication or a distress message format, which is relayed through space stations.

(b) The distress alert must be sent through a satellite either with absolute priority in general communication channels or on exclusive distress and safety frequencies or, alternatively, on the distress and safety frequencies in the MF, HF, and VHF bands using digital selective calling.

(c) The distress alert must be sent only on the authority of the person responsible for the ship, aircraft or other vehicle carrying the mobile station or the mobile earth station.

(d) All stations which receive a distress alert transmitted by digital selective calling must immediately cease any transmission capable of interfering with distress traffic and must continue watch on the digital selective call distress calling channel until the call has been acknowledged to determine if a coast station acknowledges the call using digital selective calling. Additionally, the station receiving the distress alert must set watch on the associated distress traffic frequency for five minutes to determine if distress traffic takes place. The ship can acknowledge the call using voice or narrowband direct printing as appropriate on this channel to the ship or to the rescue authority.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003]

§ 80.1113 Transmission of a distress alert.

(a) The distress alert must identify the station in distress and its position. The distress alert may also contain information regarding the nature of the distress, the type of assistance required, the course and speed of the mobile unit, the time that this information was recorded and any other information which might facilitate rescue.

(b) The format of distress calls and distress messages must be in accordance with ITU-R Recommendation M.493-11, "Digital Selective-calling system for use in the Maritime Mobile Service," with Annexes 1 and 2, 2004, and ITU-R Recommendation M.541-9, "Operational Procedures for the Use of

Digital Selective-Calling Equipment in the Maritime Mobile Service," with Annexes 1 through 5, 2004, as specified in §80.1101. ITU-R Recommendation M.493-11, with Annexes 1 and 2, and ITU-R Recommendation M.541-9, with Annexes 1 through 5, 2004, are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http:// www.archives.gov/federal_register/

code_of_federal_regulations/ ibr_locations.html. The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland.

- (c) Ship-to-shore distress alerts are used to alert Rescue Coordination Centers via coast stations or coast earth stations that a ship is in distress. These alerts are based on the use of transmissions via satellites (from a ship earth station or a satellite EPIRB) and terrestrial services (from ship stations and EPIRBS).
- (d) Ship-to-ship distress alerts are used to alert other ships in the vicinity of the ship in distress and are based on the use of digital selective calling in the VHF and MF bands. The HF bands should not be used to notify ships in the vicinity unless no response is received within five minutes on VHF or MF.
- (e) Shore-to-ship distress alert relays are used by a station or Rescue Coordination Center to relay information about a ship in distress to, as appropriate, all ships, a selected group of ships, or a specific ship by satellite and/or terrestrial means. The distress alert relay must contain the identification of the mobile unit in distress, its position and all other information which might facilitate rescue.

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